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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,132	08/16/2001	Yasukazu Mukogawa	212883US2	1254

22850 7590 03/27/2003

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ALEXANDRIA, VA 22314

EXAMINER

CINTINS, IVARS C

ART UNIT	PAPER NUMBER
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1724

8

DATE MAILED: 03/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/930,132

Applicant(s)

Mukogawa et al.

Examiner

Ivars Cintins

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 16, 2003
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above, claim(s) 1-4 and 9-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 7 6) ☐ Other:

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Applicant's election with traverse of Group II, claims 5-8, in Paper No. 6 is acknowledged. The traversal is on the grounds that a search and examination of the entire application would not place a serious burden on the Examiner. This is not found persuasive because, as pointed out in the previous Office action, the apparatus of Group II does not require the following elements of Group I: (a) the ultraviolet oxidation unit, (b) the oxidant decomposition unit, (c) the measuring device, and (d) the calculation/control system; nor does it require the following elements of Group III: (a) the total organic carbon meter, and (b) the oxygen dissolution unit. Accordingly, the additional searches required for an ultraviolet oxidation unit, an oxidant decomposition unit, a measuring device, a calculation/control system, a total organic carbon meter, and an oxygen dissolution unit would constitute a serious burden upon the examiner.

The requirement is still deemed proper and is therefore made FINAL. Claims 1-4 and 9-11 are withdrawn from further consideration, as being directed to a non-elected invention.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 5, 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Muller et al. (U.S. Patent No. 4,383,920). The reference discloses a water purification system comprising six treatment tanks, all of which may contain an ion exchange resin (see the Table bridging col. 4 and col. 5), and sufficient plumbing such that these six tanks may be connected in series, in parallel, or in any combination of series and parallel (see col. 1, lines 58-61). Accordingly, this reference system is capable of producing a multitude of bypass routes, including all those recited in claims 5, 6 and 8.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al. as applied above, and further in view of Obata et al. (U.S. Patent No. 5,571,419) or WO 97/30939. Muller et al. discloses the claimed invention with the exception of the recited ultrafiltration membrane (film). Applicant should note that the measuring apparatus of Muller et al. which monitors the quality of purified liquid output (see col. 1, lines 62-63) is deemed to be indistinguishable from the "metal concentration meter" of claim 7. Obata et al. and WO 97/30939 disclose purifying water with a combination of ion exchange resins and an ultrafiltration membrane (see col. 6, lines 46-47 of Obata et

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al.; and element 11 of WO 97/30939). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the system of Muller et al. with the ultrafiltration unit of Obata et al. or WO 97/30939, in order to further purify the water undergoing treatment in this primary reference system.

Sterling et al. (U.S. Patent No. 6,375,851) shows a similar liquid purification system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to I. Cintins whose telephone number is (703) 308-3840. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

The fax phone numbers for this art unit are: (703) 872-9311 for "Official" faxes after Final Rejection; (703) 872-9310 for all other "Official" faxes; and (703) 872-9492 for "Draft" and other "Unofficial" faxes.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.



Ivars C. Cintins
Primary Examiner
Art Unit 1724

I. Cintins
March 23, 2003